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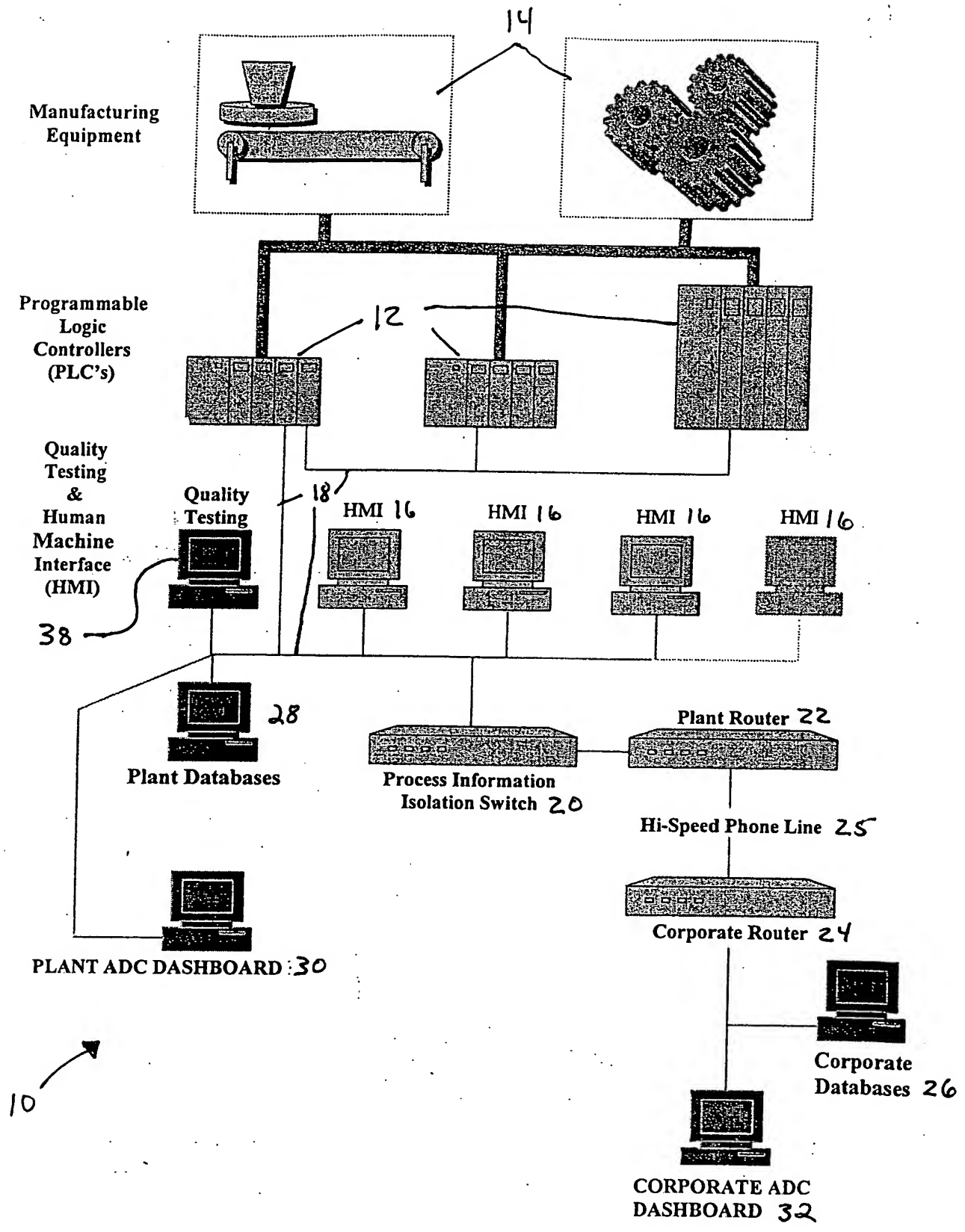


Fig. 1

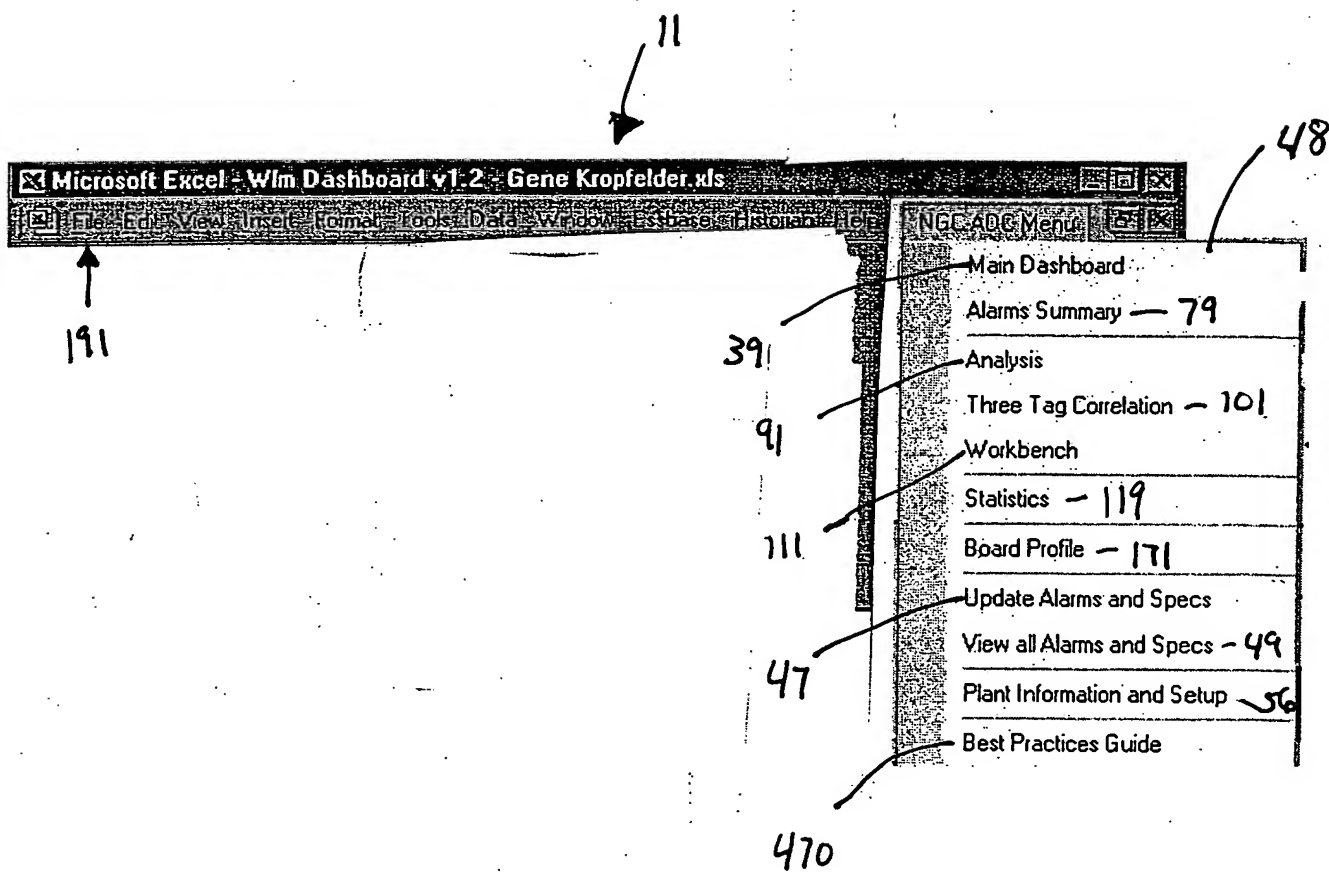


Figure 2a

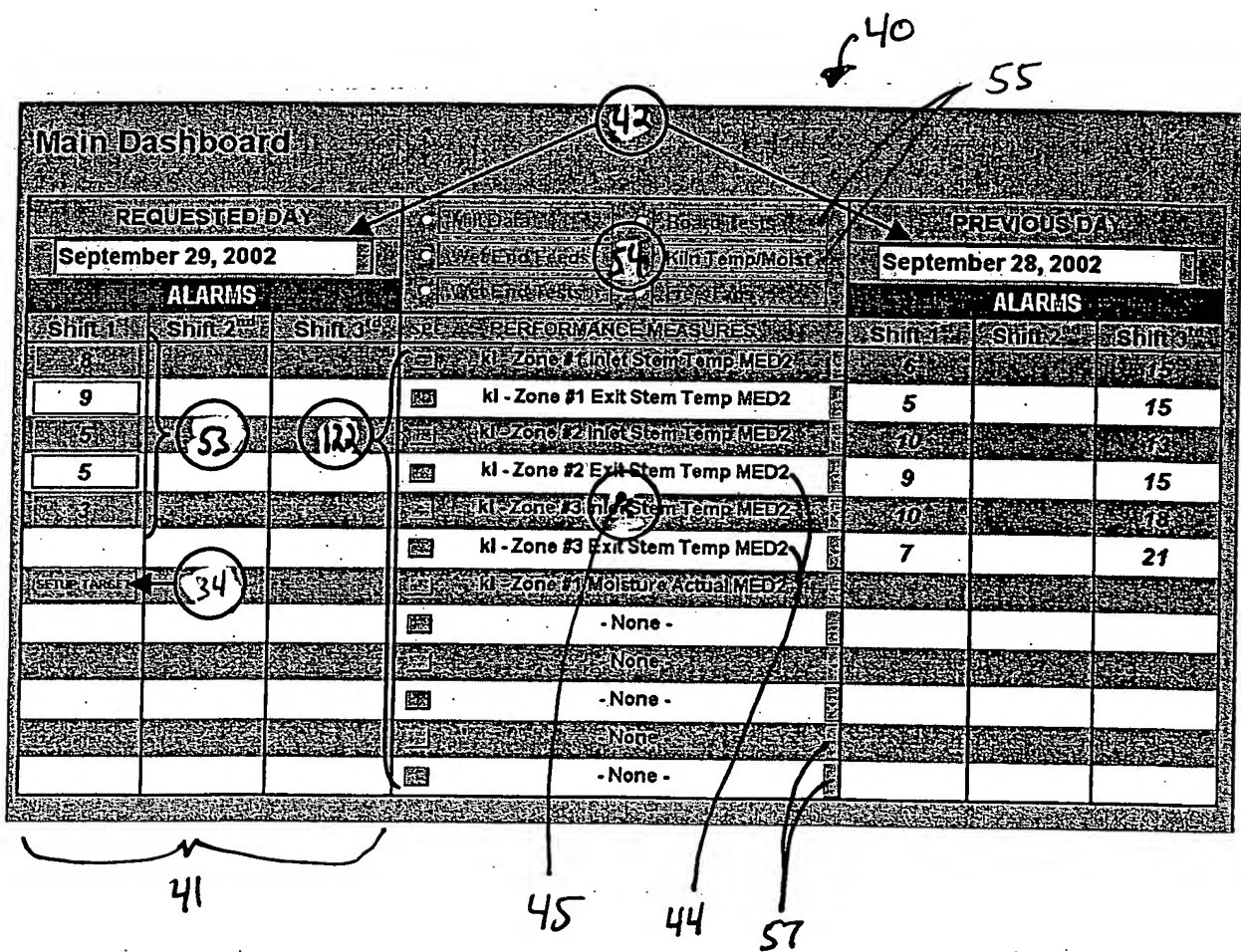


Fig. 2b

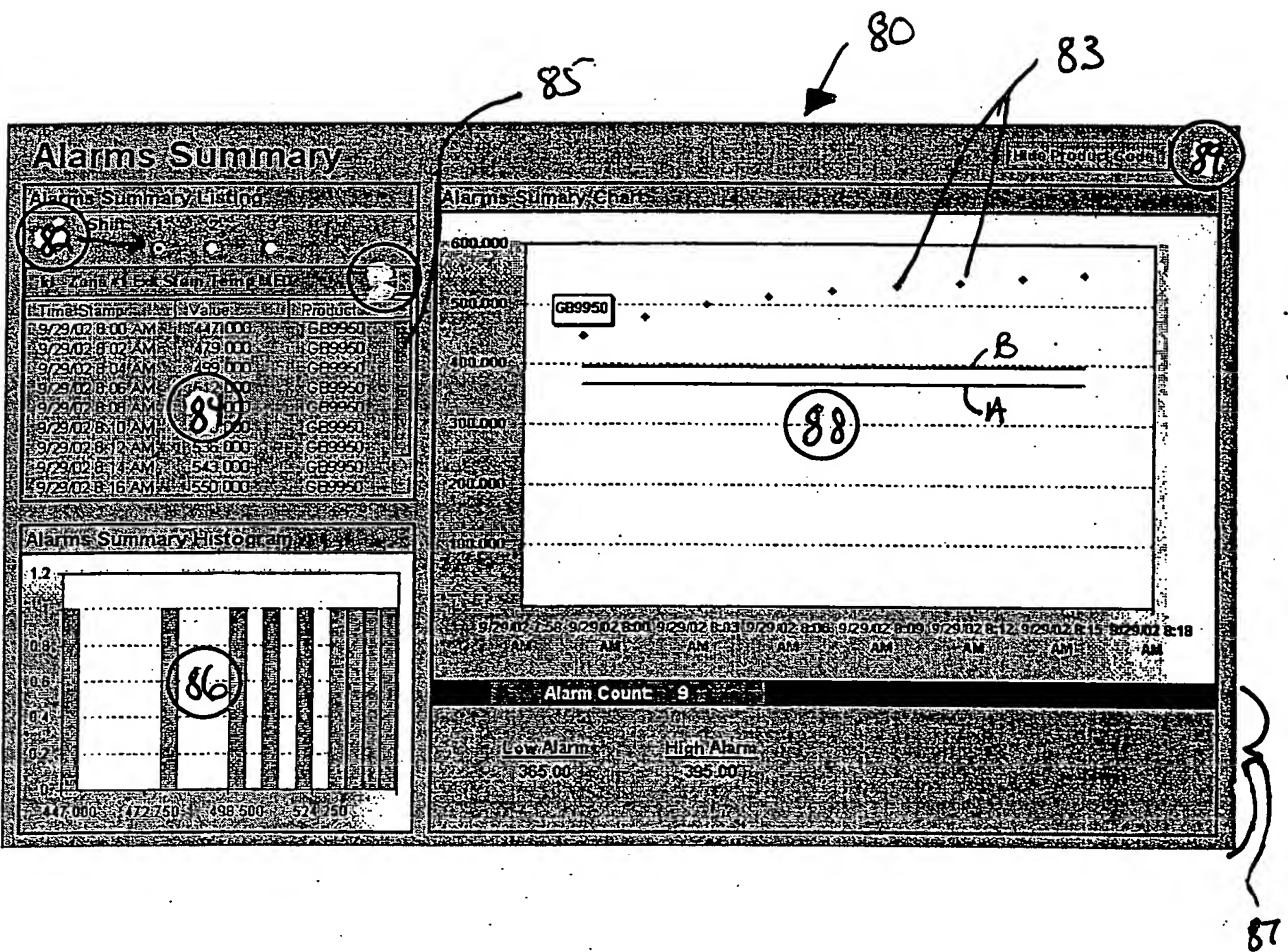


Fig. 3

435

46

57

436

44

### Update Alarms and Specifications

UPDATE CANCEL

Select From: 51

Select Measure: 50

mi - Calcine #6 Outlet Temp Actual

PLC Value	All	1	2	3	4	5	6	7	8	9	10	11	12	13
Product Description	All	12" REG SITE	12" SS SITE	12" SS TE (Sta Smooth)	12" SS HS (Sta Smooth)	12" SS TE (Sta Smooth)	12" DB Durabond	12" ISC TE (Sta Smooth)	12" ISC SS (Sta Smooth)	12" ISC TE (Sta Smooth)	12" ISC SS (Sta Smooth)	12" ISC TE (Sta Smooth)	12" ISC SS (Sta Smooth)	12" ISC TE (Sta Smooth)
Product Code	All	GB4080	GB0019	GB6270	GB0116	GB2280	GB5926	GB6793	GB6601	GB6058	GB9950	GB1280	GB1310	
High Alarm	370	370	370	370	370	370	370	370	370	370	370	370	370	
Low Alarm	330	330	330	330	330	330	330	330	330	330	330	330	330	
Upper Spec Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	
Lower Spec Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	

Fig. 4a

54

58

Microsoft Excel - Win Dashboard v1.2 - Gene Kropfelder.xls

File Edit Format Tools Data Window View Help

Alarms and Warnings Specification

Row for Last Tag

PLC Value	1	2	3	4	5	6	7	8	9	10	11	12	13	14
125 Product Description	AI	3/8" TE	1/2" TE	1/2" KK	1/2" FSO	1/2" MR	1/2" KK FSS	HS CELISTA SMO	SHEATH	5/8" FS	5/8" MR FSS	5/8" KK FSS	5/8" FS JS	
Product Code	AI	GB3990	GB4080	GB5620	GB6793	GB3760	GB1242	GB0019	GB6770	GB8000	GB9950	GB1400	GB1050	GB9468
wim.BL_Line_Speed_Actual		190	190	190	190	190	190	190	190	190	190	190	190	190
High Alarm		190	190	190	190	190	190	190	190	190	190	190	190	190
Low Alarm		140	140	140	140	140	140	140	140	140	140	140	140	140
Upper Spec Limit														
Lower Spec Limit														
Retrieval Interval														
wim.WE_Soap_Actual		0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
High Alarm		0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Low Alarm		0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45
Upper Spec Limit														
Lower Spec Limit														
Retrieval Interval														
wim.WE_Stucco_Temp		220	220	220	220	220	220	220	220	220	220	220	220	220
High Alarm		220	220	220	220	220	220	220	220	220	220	220	220	220
Low Alarm		190	190	190	190	190	190	190	190	190	190	190	190	190
Upper Spec Limit														
Lower Spec Limit														
Retrieval Interval														
wim.KF_Ramsey_Weight_Actual		2600	2600	2600	2600	2600	2600	2600	2600	2600	2600	2600	2600	2600
High Alarm		2600	2600	2600	2600	2600	2600	2600	2600	2600	2600	2600	2600	2600
Low Alarm		2300	2300	2300	2300	2300	2300	2300	2300	2300	2300	2300	2300	2300
Upper Spec Limit														
Lower Spec Limit														
Retrieval Interval														
wim.WE_Gauging_Water_Actual		620	620	620	620	620	620	620	620	620	620	620	620	620
High Alarm		620	620	620	620	620	620	620	620	620	620	620	620	620
Low Alarm		400	400	400	400	400	400	400	400	400	400	400	400	400
Upper Spec Limit														
Lower Spec Limit														
Retrieval Interval														
wim.DE_Moisture_Average		16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5
High Alarm		16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5
Low Alarm		12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
Upper Spec Limit														
Lower Spec Limit														
Retrieval Interval														
wim.RD_Pan_Feeder_Rate_Actual		55	55	55	55	55	55	55	55	55	55	55	55	55
High Alarm		55	55	55	55	55	55	55	55	55	55	55	55	55
Low Alarm		1	1	1	1	1	1	1	1	1	1	1	1	1
Upper Spec Limit														
Lower Spec Limit														
Retrieval Interval														
wim.RD_Moisture_Actual		77	77	77	77	77	77	77	77	77	77	77	77	77
High Alarm		77	77	77	77	77	77	77	77	77	77	77	77	77
Low Alarm		72	72	72	72	72	72	72	72	72	72	72	72	72
Upper Spec Limit														
Lower Spec Limit														

85

Fig. 46

62

60

Product Information				Shift Information		
PLC Value	Product Code	Description	Width (inches)	Shift	Start	End
0	NONE	NO PRODUCT RUNNING	NONE	1 <sup>ST</sup> SHIFT	8:00 AM	4:00 PM
1	GB4080	1/2" REG TE	48	2 <sup>ND</sup> SHIFT	4:00 PM	12:00 AM
2	GB0019	1/2" HS TE	48	3 <sup>RD</sup> SHIFT	2:00 AM	8:00 AM
3	GB5270	1/2" SS TE (Sta-Smooth)	48			
4	GB0116	1/2" SS HS (Sta-Smooth)	48			
5	GB2280	1/2" KK TE	48			
6	GB5926	1/2" DB (Durabase)	48			
7	GB6793	1/2" FSC TE	48			
8	GB6601	1/2" FSC SS (Sta-Smooth)	48			
9	GB6058	1/2" FSC KK	48			
10	GB9950	5/8" FS TE	48			
11	GB1280	5/8" FS KK	48			
12	GB1310	5/8" FS SS	48			
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						

70

66

64

68

76

Plant Information	
Line Length (Mixer to Knife) - Feet	595
Wet Transfer Length - Feet	30
Kiln Length - Feet	413
Number of Deck in Kiln	3
Kiln Zone 1 Length - Feet	121
Kiln Zone 2 Length - Feet	97
Kiln Zone 3 Length - Feet	205
Kiln Zone 4 Length - Feet	

74

72

Fig. 5



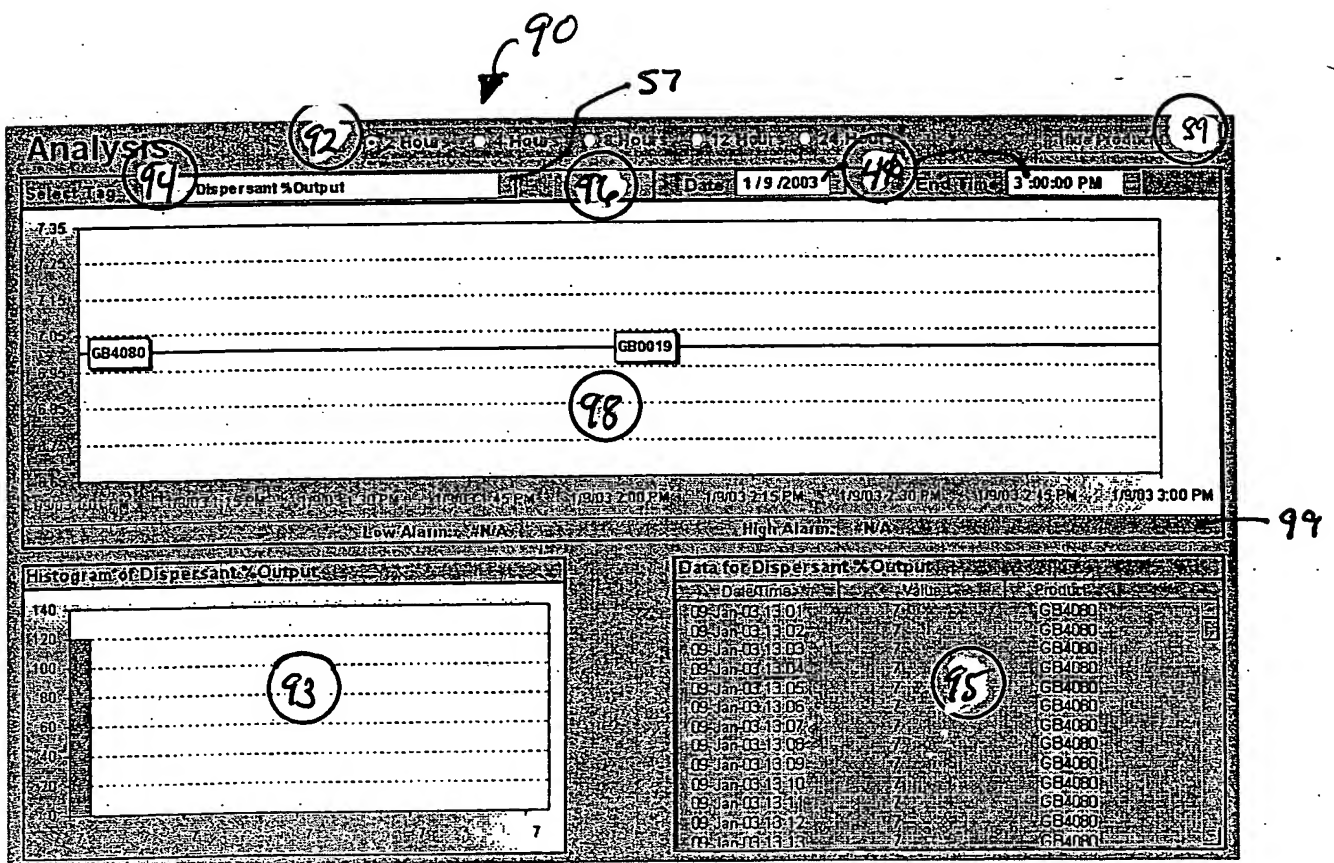


Fig. 6

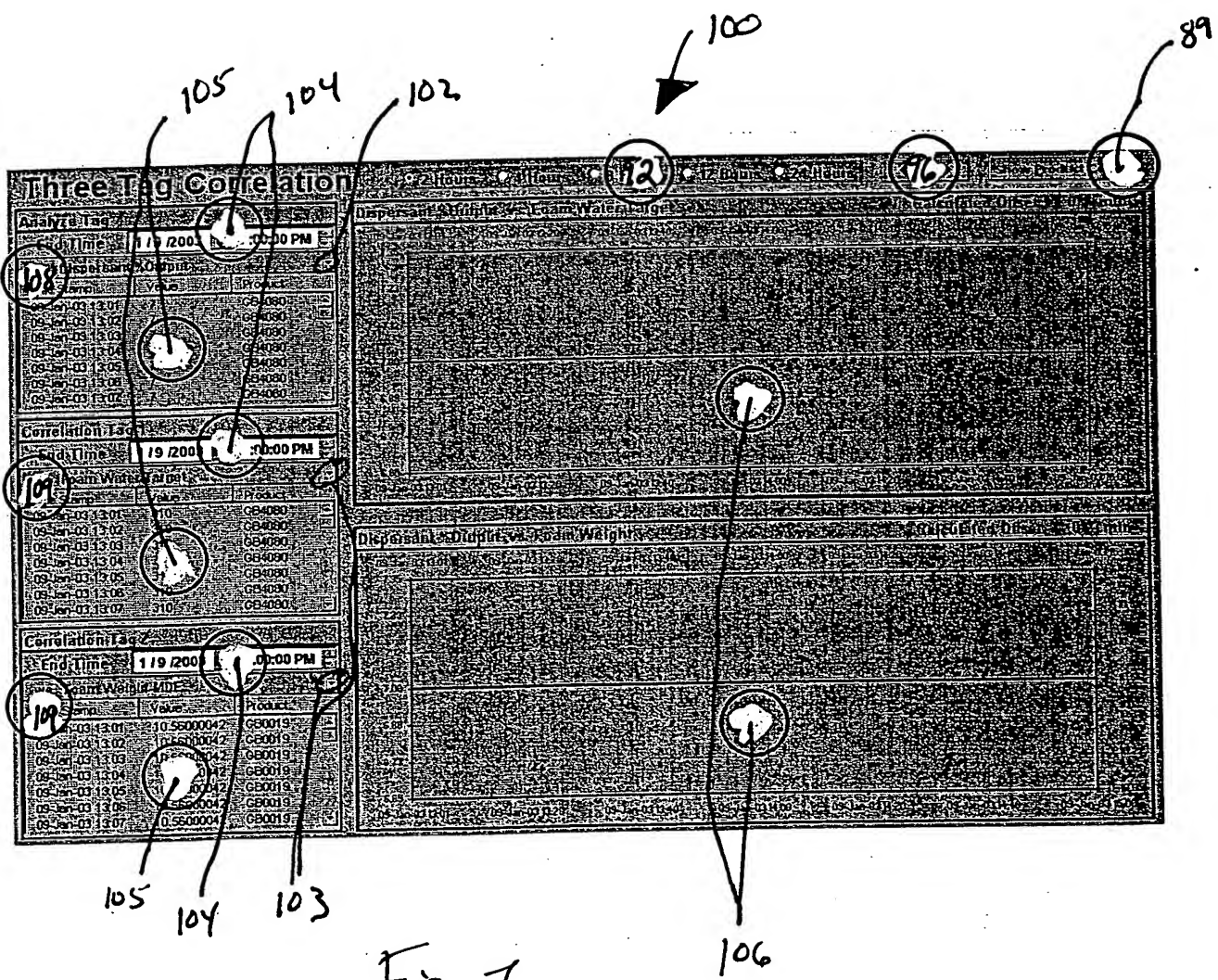


Fig. 7

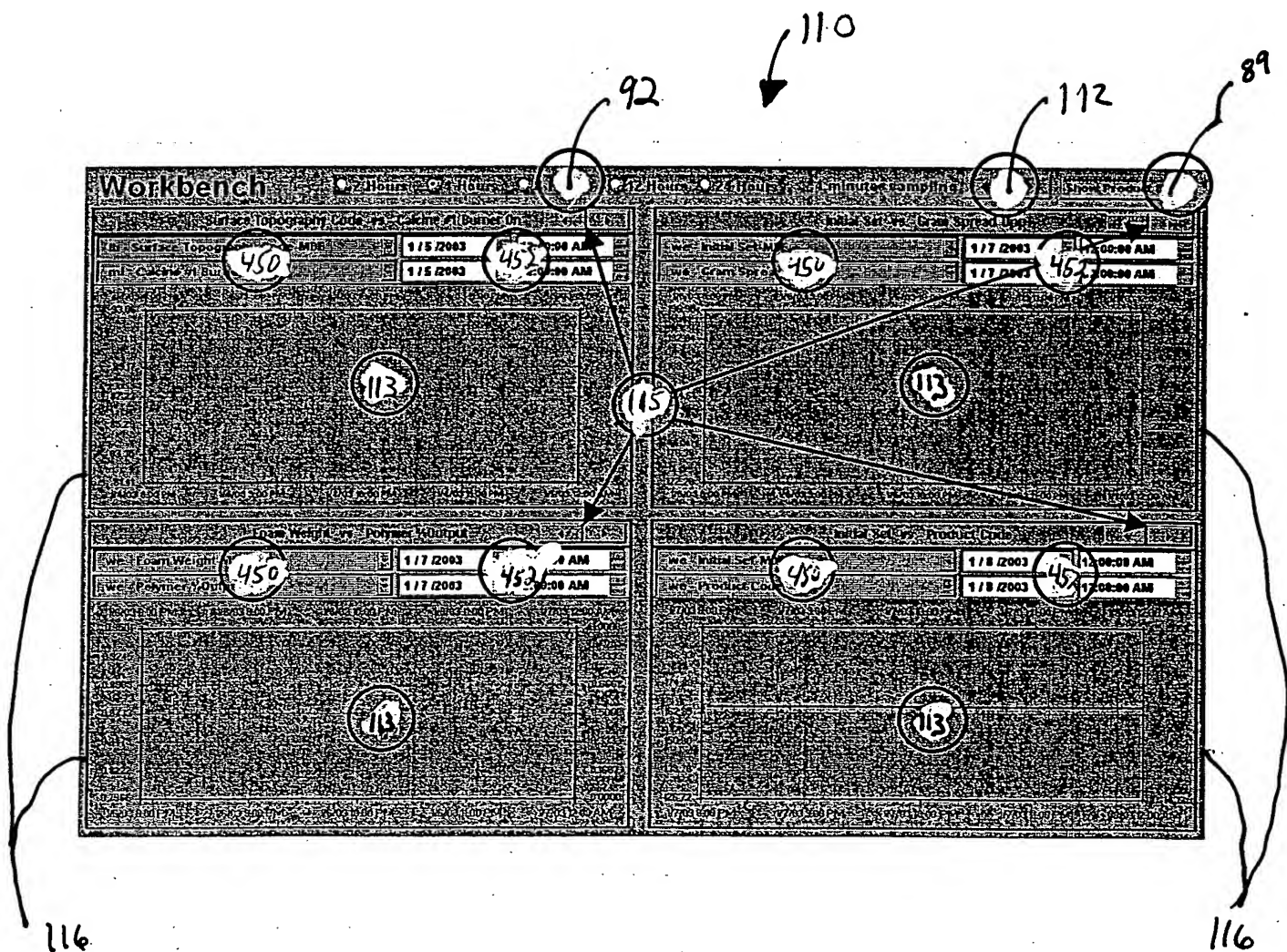


Fig. 8

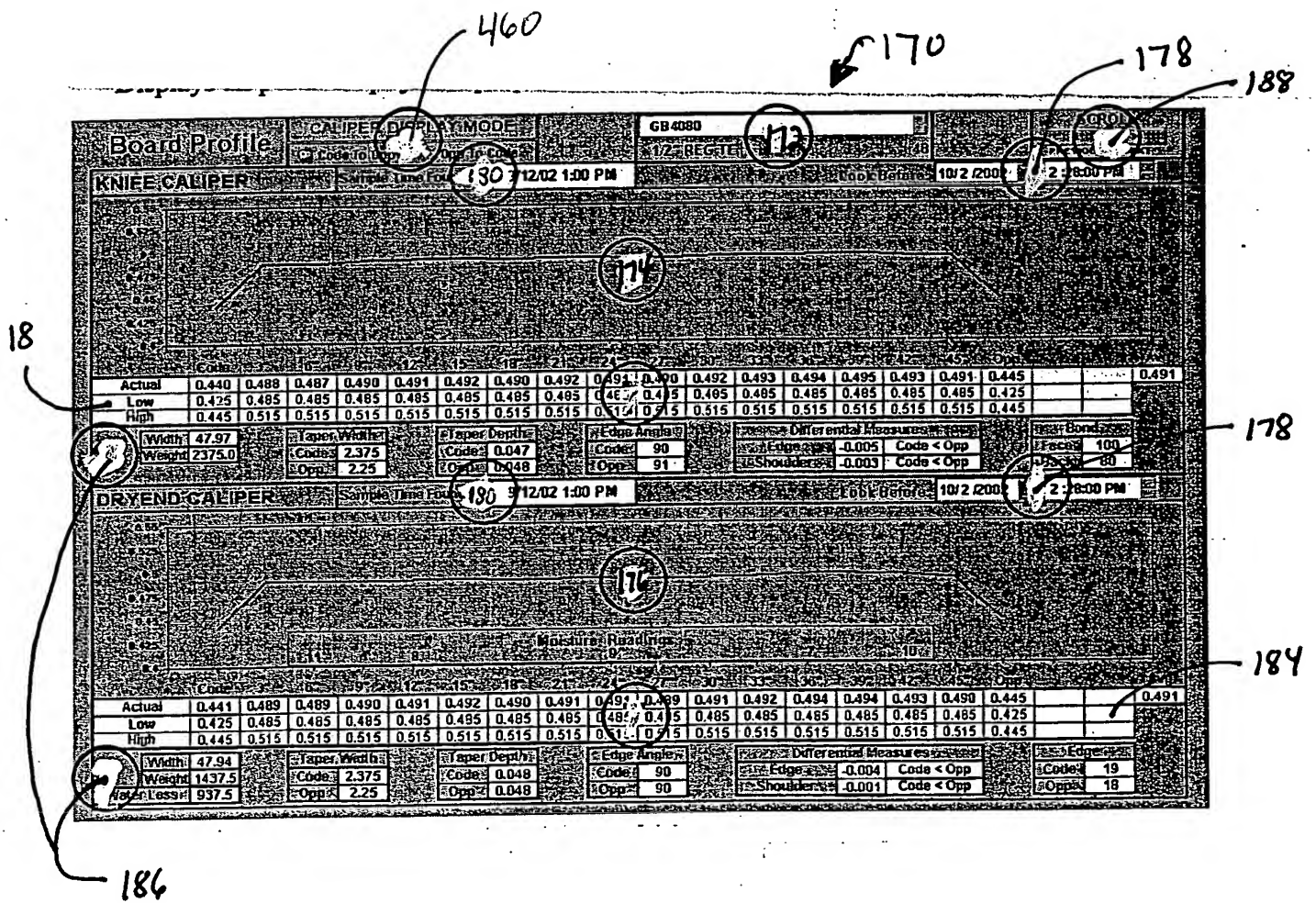
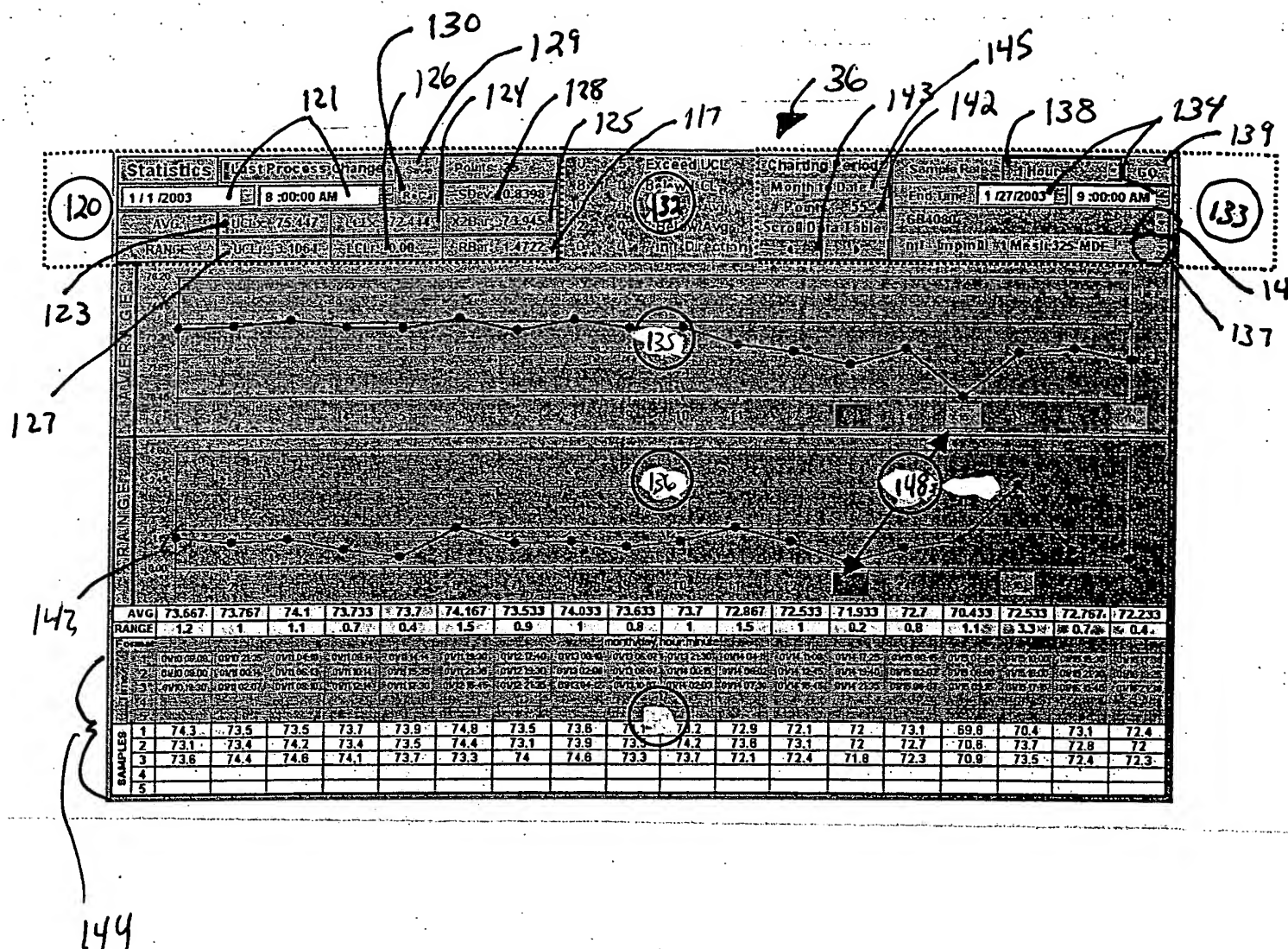


Fig. 9





SPC Reason/ and Actions

mlc Impmill #1 Mesh 325 MDE

Time Stamp	Value	Reason Code	Description	Corrective Action Code	Description	Reason/Action
11/17/03 9:11 AM	736					None
11/17/03 10:30 AM	737					None
11/17/03 12:30 PM	6919					None
You can type over the description for codes ending with -9999.		ENR-0000 M-0000 M-0001 M-9999	OK 4 entry error SPS Mesh Error SPS Mesh Cause SPS Other (you can type for wrong)			None

Use the dropdowns to select the Reason/Action Code from the valid list of codes.

Cancel Re-Include OK

152 154 156 158 150 160 162

169 164 167

168

Fig. 11a

SPC Reasons and Actions

ml Impmill Mesh 325-MDE

Corrective Action Code

Previous Reasons

Previous Actions

152 154 156 158 160 162

168

475

Time Stamp	Value	Reason Code	Description	Corrective Action Code	Description	Previous Reasons/Actions
01/14/03 6:25 PM	72					
01/14/03 7:40 PM	72					
01/14/03 9:05 PM	71.9					

Fig. 11b

The goal of this SOP is to produce stucco that is calcined below theoretical with as few adjustments as possible.

## Best Practice / S.O.P 166

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### 1. COMBINED WATER OF STUCCO EXCEEDS THE UPPER LIMIT.

MAKE SURE THE GRINDS ARE IN THE REASONABLE LIMITS.  
(COARSE GRINDS WILL CAUSE THE MOISTURES TO GO UP)

EXAMINE THE HISTORY OF PREVIOUS MOISTURE'S.  
(2 SAMPLES IN A ROW HIGH OR MOST OF THE SAMPLES WERE HIGH)

EXAMINE THE PURITY.  
(IF THE PURITY WENT UP QUITE A BIT, THE MOISTURE'S WILL GET HIGHER)

IF GRINDS ARE OUT OF THE CONTROL LIMITS, THEY NEED TO BE LINED OUT BEFORE ANY ADJUSTMENTS ARE MADE TO THE CALCIDYNE'S.

IF GRINDS ARE IN THE CONTROL LIMITS AND PURITY IS STABLE AND SAMPLE STILL EXCEEDS THE UPPER LIMITS THEN AN ADJUSTMENT TO THE CALCIDYNE NEEDS TO BE MADE.

WHEN THE PURITY GOES UP, IT MAY TAKE SOME TIME FOR THE CALCIDYNE'S TO ADJUST, NO NEED TO MAKE ADJUSTMENTS RIGHT AWAY. RUN A COUPLE OF SAMPLES AND SEE IF THEY WILL ADJUST BY THEMSELVES. IF NOT MAKE AN ADJUSTMENT.

### 2. COMBINED WATER OF STUCCO IS LESS THAN THE LOWER LIMIT

MAKE SURE THE GRINDS ARE IN THE REASONABLE LIMITS.  
(FINE GRINDS WILL CAUSE THE MOISTURES TO GO DOWN)

EXAMINE THE HISTORY OF PREVIOUS MOISTURE'S.  
(2 SAMPLES IN A ROW LOW OR MOST OF THE SAMPLES WERE LOW)

EXAMINE THE PURITY.  
(IF THE PURITY WENT DOWN QUITE A BIT, THE MOISTURE'S WILL GET LOWER)

IF GRINDS ARE OUT OF THE CONTROL LIMITS, THEY NEED TO BE LINED OUT BEFORE ANY ADJUSTMENTS ARE MADE TO THE CALCIDYNE'S.

IF GRINDS ARE IN THE CONTROL LIMITS AND PURITY IS STABLE AND SAMPLE STILL EXCEEDS THE LOWER LIMITS THEN AN ADJUSTMENT TO THE CALCIDYNE NEEDS TO BE MADE.



192

**Quality Report Login Screen**

Open File 194

Enter Password  Enter Password 189  
Required to Change Plant Server  
Required to Activate the Open File Button if a Corporate User

Select Plant  195

Select Server  197  
Select Plant Only if you are at the plant  
Select Corporate only if you are located in Charlotte or you need to access a plant server other than your own

The Selected Server Is  
 199

Fig. 13

193

## MONTHLY BOARD QUALITY REPORT

Select Plant and Date For Report:

Selected Plant: 185

Select Month & Year: 2002 1963 December

Start Date:

End Date:

199

↓

Retrieve Data

Data must be retrieved before you view Product Details or Reports

206

↓

Setup

Review and Update product information

---

Select Products To Include In This Report:

Product 1:

Product 2:

Product 3:

Product 4:

Product 5:

210

View Product Detail

Product Details

Product Details

Product Details

Product Details

Product Details

213

View / Print Reports

Monthly Board Report

Monthly Board Report

Monthly Board Report

Monthly Board Report

Server In Use: 199 HQADC

Selected Server: 197 Corporate

187

201

215

Fig. 14

# MONTHLY BOARD QUALITY REPORT

5200

PRODUCT CODE AND DESCRIPTION	GB4080 401 1/2" REG-TE	GB9950 401 5/8" FST-TE	GB2280 401 1/2" KK-TE	GB0019 401 1/2" HS-TE	GB0116 401 1/2" SS HS (SEA-Smooth)
------------------------------	---------------------------	---------------------------	--------------------------	--------------------------	---------------------------------------

Lab 402	NAIL PULL lbs of force				
Number of samples	75	22	1	9	4
Specification ( Min )	80.0	90.0	80.0	80.0	80.0
3-Month Rolling Average	71.4	84.8	82.1	70.6	70.9
Standard Deviation	2.722	4.458		2.985	3.081
Year-to-Date Average	71.4	84.8	82.1	70.6	70.9
Prior Year Average	74.886	89.838	85.750	77.067	76.100
Cpk	-1.049	-0.391		-1.046	-0.990
Est. Defects Per 1,000 Units	> 500	> 500		> 500	> 500
Cp	-1.049	-0.391		-1.046	-0.990

Lab	CORE HARDNESS lbs of force				
Number of samples	68	21	1	9	4
Specification ( Min )	15.0	15.0	15.0	15.0	15.0
3-Month Rolling Average	17.1	23.0	19.3	17.1	16.3
Standard Deviation	1.366	1.750		1.054	0.831
Year-to-Date Average	17.1	23.0	19.3	17.1	16.3
Prior Year Average	18.276	23.056	17.333	18.389	16.889
Cpk	0.518	1.514		0.668	0.535
Est. Defects Per 1,000 Units	80	< 1		40	80
Cp	0.518	1.514		0.668	0.535

Lab	EDGE HARDNESS CODE lbs of force				
Number of samples	67	21	1	8	4
Specification ( Min )	15.0	15.0	15.0	15.0	15.0
3-Month Rolling Average	56.1	72.4	64.3	56.5	51.7
Standard Deviation	4.725	9.285		6.644	7.193
Year-to-Date Average	56.1	72.4	64.3	56.5	51.7
Prior Year Average	42.430	64.194	55.000	43.846	47.000
Cpk	2.900	2.061		2.080	1.703
Est. Defects Per 1,000 Units	< 1	< 1		< 1	< 1
Cp	2.900	2.061		2.080	1.703

Lab	EDGE HARDNESS OPP CODE lbs of force				
Number of samples	66	21	1	8	4
Specification ( Min )	15.0	15.0	15.0	15.0	15.0
3-Month Rolling Average	62.1	75.0	79.3	57.7	62.7
Standard Deviation	5.351	7.700		4.366	0.837
Year-to-Date Average	62.1	75.0	79.3	57.7	62.7
Prior Year Average	49.159	60.030	62.222	46.282	47.000
Cpk	2.934	2.599		3.261	19.016
Est. Defects Per 1,000 Units	< 1	< 1		< 1	< 1
Cp	2.934	2.599		3.261	19.016

Lab	END HARDNESS lbs of force				
Number of samples	69	21	1	9	4
Specification ( Min )	15.0	15.0	15.0	15.0	15.0
3-Month Rolling Average	16.1	22.2	20.3	16.4	15.2
Standard Deviation	1.385	1.798		0.961	0.638
Year-to-Date Average	16.1	22.2	20.3	16.4	15.2
Prior Year Average	17.829	22.528	18.000	18.028	16.889
Cpk	0.255	1.336		0.488	0.087
Est. Defects Per 1,000 Units	300	< 1		120	> 500
Cp	0.255	1.336		0.488	0.087

Fig. 15

431

Return

## Monthly Board Weight Report

PLANT : WilmingtonMONTH : February 2003

Save As File

430

1/2" SHEATHING Board	MONTHLY WEIGHT DATA		
	AVG WEIGHT	STD DEV	# OF SAMPLES
December 2002	1719	9	2
January 2003	1713	16	6
February 2003			
March 2003			
April 2003			
May 2003			
June 2003			
July 2003			
August 2003			
September 2003			
October 2003			
November 2003			
December 2003			
YTD AVERAGE	1713	16	6

Fig. 16

# Product Data

PLC Value	Description	Product Code	Width	STD Speed	STD Dry Weight	STD Water Loss	STD - 2-Hr Humidified Bond	STD - 20-Hr Humidified Bond	Go Live Date
0	NO PRODUCT RUNNING	NONE	NA	NA	NA	NA	NA	NA	6/1/02 12:00 AM
1	3/8" TE	GB3950	48"						
405	1/2" TE	GB1190	48"			409			
3	1/2" KK	GB5620	48"						
4	1/2" FSG	GB6793	48"						
5	1/2" MR	GB3760	48"						
6	1/2" KK FS	GB1242	48"						
7	1/2" HS CEILING	GB0019	48"						
8	1/2" SS (STA SMOOTH)	GB6270	48"						
9	1/2" SHEATHING	GB8000	48"						
10	5/8" FS	GB9950	48"						
11	5/8" MR FS	GB1400	48"						
12	5/8" KK FS	GB1050	48"						
13	5/8" FS JS	GB9465	48"						
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									

Return

Fig. 17

431

212

44

430

1/2" TE																	
GB4080																	
February 2003																	
Machine		Dry	Wet	Water	Board	Taper Depth						Edge Hardness		End	d	Transverse	
Speed	Weight	Weight	Loss	Width	Code	Opp	Code	Caliper	Nail Pull	Core	Hardness	Code	Opp	Hardness	Deflection	Face Up	Face Down
Code	Code	Code	Code	Code	Code	Code	Code	Code	Code	Code	Code	Code	Code	Code	Code	Code	Code
January 2003																	
Monthly Information																	
Count	1339	272			272	270	271	272	25	3	3	0	3	9	25	25	
January 2003	180.7	1714			48.00	0.056	0.056	0.490	77.1	21.2	30.2		19.2	0.117	51	51	
Daily Information																	
January 1, 2003																	
January 2, 2003																	
January 3, 2003	181.8	1732	2505	773	48.00	0.055	0.056	0.491									
January 4, 2003	182.0	1713	2513	801	48.00	0.054	0.053	0.491	75.2							40	44
January 5, 2003	168.2	1698		770	48.00	0.049	0.054	0.491									
January 6, 2003	181.8	1718		760	48.00	0.053	0.056	0.492	88.0					0.125		43	52
January 7, 2003	181.7	1670		790	48.00	0.049	0.059	0.490	74.4					0.125		47	52
January 8, 2003	181.8	1718		761	48.00	0.059	0.061	0.491	77.7					0.094		53	50
January 9, 2003	181.6	1709		782	48.00	0.052	0.050	0.495	74.0							50	53
January 10, 2003																	
January 11, 2003	169.7	1721		765	48.00	0.054	0.053	0.487									
January 12, 2003	181.8	1716		773	48.00	0.045	0.049	0.489	82.0					0.125		51	58
January 13, 2003	182.1	1728	2518	789	47.99	0.054	0.056	0.490	76.7					0.125		51	53
January 14, 2003	181.9	1715	2535	820	47.98	0.061	0.058	0.491	76.7	21.3	30.3		20.0	0.125		55	51
January 15, 2003	181.8	1713	2534	821	48.00	0.060	0.062	0.495									
January 16, 2003	177.7	1703	2505	802	48.00	0.063	0.062	0.489									
January 17, 2003	181.7	1734	2567	833	48.00	0.063	0.053	0.490	76.2					0.094		60	51
January 18, 2003																	
January 19, 2003	177.9	1709	2533	823	47.99	0.060	0.046	0.487									
January 20, 2003	182.1	1706	2504	798	48.00	0.053	0.046	0.490	78.9					0.125		52	48
January 21, 2003	181.0	1709	2537	828	48.00	0.048	0.047	0.491	74.8							60	58
January 22, 2003	179.8	1718	2553	838	48.00	0.052	0.055	0.489	79.2	21.0	30.0		18.3			50	49
January 23, 2003	180.9	1719	2535	815	47.99	0.055	0.062	0.492	81.0							52	52
January 24, 2003	182.0	1725	2547	822	47.98	0.066	0.068	0.493	85.8							49	53
January 25, 2003			2538														
January 26, 2003	178.5	1722	2524	802	47.99	0.067	0.058	0.489	73.3							47	52
January 27, 2003	182.0	1718	2515	797	48.00	0.055	0.065	0.488	70.8							48	52
January 28, 2003	181.7	1715	2524	809	48.00	0.061	0.055	0.489	77.0							51	59
January 29, 2003	181.8	1708	2541	833	47.99	0.058	0.061	0.491	66.8							49	50
January 30, 2003	181.5	1713	2537	824	48.00	0.049	0.058	0.491									
January 31, 2003																	

Fig. 18a

	Machine Speed	Dry Weight	Wet Weight	Water Loss	Board Width	Taper Depth				Core Hardness	Edge Hardness		End Hardness	4 Deflectio	Face Up MD	Face Down	Transverse S F
						Code	Opp Code	Caliper	Nail Pull		Code	Opp Code					
<b>February 2003</b>																	
3-Month Rolling Avg																	
Average	180.6		2511	800	47.997	0.057	0.056	0.490	77.5	21.8	28.8		19.0	0.128	48	50	
Number of Samples	2931		845	54	593	587	588	593	49	3	3	0	3	28	49	49	
LSL					47.29/32	0.050	0.050	0.485	80	15.0	15.0	15.0	15.0		40	40	
USL					48	0.090	0.090	0.515						1.250			
Std Dev	3.464	55.969	45.956	33.603	0.018	0.020	0.017	0.004	4.387	1.072	2.411		0.882	0.025	4.442	3.550	1
Std Dev / 1.7321	2.000	31.967	26.533	19.400	0.009	0.011	0.010	0.002	2.533	0.619	1.392		0.509	0.014	2.564	2.050	
Cpk1					0.115	0.948	1.178	3.890						26.368			
Cpk2					0.230	0.217	0.222	0.829	-0.334	3.652	3.299		2.619		1.037	1.668	
Cpk3					0.115	0.217	0.222	0.829	-0.334	3.652	3.299		2.619	26.368	1.037	1.668	
Cp					1.673	0.583	0.698	2.359	-0.334	3.652	3.299		2.619	26.368	1.037	1.668	
<b>3-Month Period Ending</b>																	
January	181.1	1712	2509	798	48.00	0.058	0.058	0.490	77.5	21.8	28.8		19.0	0.128	48	50	
February	180.6		2511	800	48.00	0.057	0.058	0.490	77.5	21.8	28.8		19.0	0.128	48	50	
March	179.9		2517	807	48.00	0.056	0.057	0.491	77.1	21.2	30.2		19.2	0.117	51	51	
April	177.0		2527	835	48.00	0.053	0.057	0.492									
May																	
June																	
July																	
August																	
September																	
October																	
November																	
December																	

Fig. 18b

	Machine Speed	Dry Weight	Wet Weight	Water Loss	Board Width	Taper Depth				Core Hardness	Edge Hardness		End Hardness	4 Deflectio	Face Up MD	Face Down	Transverse S F
						Code	Opp Code	Caliper	Nail Pull		Code	Opp Code					
<b>Current Year Info</b>																	
Year-to-date Avg	179.9	1710	2517	807	48.00	0.056	0.057	0.491	77.1	21.2	30.2		19.2	0.117	51	51	
Entire Year Avg	179.9		2517	807	48.00	0.056	0.057	0.491	77.1	21.2	30.2		19.2	0.117	51	51	
<b>Prior Year Info</b>																	
December (Last Year)	181.5		2502	791	48.00	0.060	0.058	0.490	77.8	23.0	26.0		18.7	0.133	45	49	
January	180.7	1714	2515	801	48.00	0.056	0.058	0.490	77.1	21.2	30.2		19.2	0.117	51	51	
February	177.0	1692	2527	835	48.00	0.053	0.057	0.492									
<b>Overwrite iHistorian Data</b>																	
Enter Year Avg																	
<b>iHistorian Data</b>																	
Entire Year Avg	176.1		2502	791	48.00	0.060	0.056	0.490	77.8	23.0	26.0		18.7	0.133	45	49	
Year-to-date Avg																	
Entire Year Avg	176.1		2502	791	48.00	0.060	0.056	0.490	77.8	23.0	26.0		18.7	0.133	45	49	

Fig. 18c



252 253 259 250

Select Starting Date and Time:  
February 25, 2003 12:00 AM

Select Plant: Apollo Select Period / Frequency: 1 Day - Every 15 Minutes

255 Previous Next

256 RETRIEVE DATA 260 SAVE TO FILE

Select Server:  
Corporate Server

257 For best performance:  
If you are at a plant, you should select Plant Server.  
Likewise, if you are in Charlotte, you should select Corporate Server.

258

261

Select Measures →		WE	KF	DE	KF	DE	KF	DE	KF	DE	DE	DE	DE	LB
DATA	Boardline Range Log or Down	WE Product Code	KF Product Code Test	DE Product Code Test	KF Weight	DE Weight	KF Width	DE Width	KF Caliper Average	DE Caliper Average	DE Caliper Edge Differential	DE End Peel Kiln Dry Side Back	LB Humidified Bond Face 2 Hour	
Average														
Standard Deviation														
Date / Time														
2/25/03	12:00 AM	Running	7.000											
2/25/03	12:15 AM	Running	7.000											
2/25/03	12:30 AM	Running	7.000											
2/25/03	12:45 AM	Running	7.000											
2/25/03	1:00 AM	Running	7.000											
2/25/03	1:15 AM	Running	7.000											
2/25/03	1:30 AM	Running	7.000											
2/25/03	1:45 AM	Running	7.000											
2/25/03	2:00 AM	Running	7.000											
2/25/03	2:15 AM	Running	7.000											
2/25/03	2:30 AM	Running	7.000											
2/25/03	2:45 AM	Running	7.000											
2/25/03	3:00 AM	Running	7.000											
2/25/03	3:15 AM	Running	7.000											
2/25/03	3:30 AM	Running	7.000											
2/25/03	3:45 AM	Running	7.000											
2/25/03	4:00 AM	Running	7.000											
2/25/03	4:15 AM	Running	7.000											
2/25/03	4:30 AM	Running	7.000											
2/25/03	4:45 AM	Running	7.000											
2/25/03	5:00 AM	Running	7.000											
2/25/03	5:15 AM	Running	7.000											
2/25/03	5:30 AM	Running	7.000											
2/25/03	5:45 AM	Running	7.000											
2/25/03	6:00 AM	Running	7.000											

Fig. 19



252

Select Starting Date and Time		
February 25, 2003		12:00 AM
		12:00 AM 1:00 AM 2:00 AM 3:00 AM 4:00 AM 5:00 AM 6:00 AM 7:00 AM 8:00 AM 9:00 AM 10:00 AM 11:00 AM 12:00 PM 1:00 PM 2:00 PM 3:00 PM 4:00 PM 5:00 PM 6:00 PM 7:00 PM 8:00 PM 9:00 PM 10:00 PM 11:00 PM
Today: 2/25/2003		
Average		
Standard Deviation		
Date / Time		
2/25/03	12:00 AM	Running
2/25/03	12:15 AM	Running
2/25/03	12:30 AM	Running
2/25/03	12:45 AM	Running
2/25/03	1:00 AM	Running
2/25/03	1:15 AM	Running
2/25/03	1:30 AM	Running
2/25/03	1:45 AM	Running
2/25/03	2:00 AM	Running

253

Fig. 20a

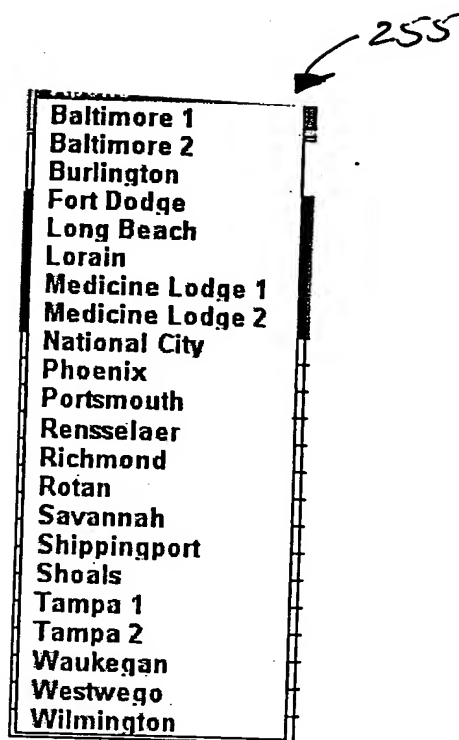


Fig. 206

## Select Period / Frequency

Select Period / Frequency

1 Day - Every 15 Minutes

1 Day - Every 15 Minutes

1 Day - Every 30 Minutes

1 Day - Every Hour

1 Day - Every 2 Hours

1 Week - Every 2 Hours

1 Week - Every 4 Hours

1 Week - Every 8 Hours

1 Week - Every 12 Hours

1 Month - Every 8 Hours

1 Month - Every 12 Hours

1 Month - Every Day

Fig. 20c

## Select Server

257 →

Select Server

Corporate Server

Corporate Server

Plant Server

If you are at a plant, you should select Plant Server.  
Likewise, if you are in Charlotte, you should select  
Corporate Server

Fig. 20d

## Select Measures (Tags)

258 →

WE Product Code

WE Product Code Test

WE Pulp % Output

WE Pulp Actual

WE Pulp Feed Tank Level Gals

WE Pulp Target

WE Pulper Batch Actual

WE Pulper Batch Potash Actual

WE Pulper Batch Potash Target

WE Pulper Batch Starch Actual

WE Pulper Batch Starch Target

WE Pulper Batch Target

WE Pulper Batch Time Remaining

WE Pulper Batch Time Target

WE Pulper Batch Waste Water Actual

Caliper Average

Fig. 20e

**National Gypsum**  
LABRARY

**Dry End Manual Data Entry**

Select Product Code: **GB4080** (312)

Plant Line: **SHO 1**

Product Code: **GB4080**

Width: **18"**

Description: **1/2" REG TE**

Select Code Date: **10/1/2002**

Select Code Time: **10:00**

308

313

311

300

305

306

314

307

310

315

Edge Differential	1/2"	Thousands of an inch	Shoulder Differential	1/2"	Thousands of an inch
Code Paper Depth	1/2"	Thousands of an inch	Opposite Paper Depth	1/2"	Thousands of an inch
Code Paper Width	18"	Inches	Opposite Paper Width	18"	Inches
Code Edge Angle	X	Degrees	Opposite Edge Angle	X	Degrees
Code Edge Hardness	X X X	Rate	Opposite Edge Hardness	X X X	Rate

Shrinkage	1/2"	Thousands of an inch	Shrinkage	1/2"	Thousands of an inch
Shrinkage	1/2"	Thousands of an inch	Shrinkage	1/2"	Thousands of an inch
Shrinkage	1/2"	Thousands of an inch	Shrinkage	1/2"	Thousands of an inch
Shrinkage	1/2"	Thousands of an inch	Shrinkage	1/2"	Thousands of an inch

Spill	Back	Void	Square	Surface Appearance
X	X	X	X	X

Fig. 21

National  
Gypsum  
CORP.

# Mill Manual Data Entry

Select Date/Time

10/1/2002

311

10:00:00 AM

Plant

SHO

305

Minimize

306

SPC Chart

307

View Mill Data

310

Mill Manual Data Entry

Set Up

Rock

Purity

Free Water

Calcination

FGD

Purity

Free Water

Calcination

Raymond Mill

Purity

Free Water

Calcination

Raymond Mill

Purity

Free Water

Calcination

Raymond Mill

Purity

Free Water

Calcination

Raymond Mill

Purity

Free Water

Calcination

Composite Land

Comb

Purity

Free Water

Calcination

FGD

Comb

Purity

Free Water

Calcination

Calcined

Purity

Free Water

Calcination

Calcined

Purity

Free Water

Calcination

Calcined

Purity

Free Water

Calcination

Composite Calcined

Purity

Free Water

Calcination

Sludge

Purity

Free Water

Calcination

Composite

Purity

Free Water

Calcination

Sludge

Purity

Free Water

Calcination

Composite Imp Mill

Purity

Free Water

Calcination

Sludge

Purity

Free Water

Calcination

Composite

Purity

Free Water

Calcination

Sludge

Purity

Free Water

Calcination

315

Fig. 22







**National Instruments**  
**GySUN**

**LAB MANUAL DATA ENTRY**

313

304

312

311

306

314

307

308

310

315

Fig. 25

Form fields and labels:

- Plant: SHO
- Product: GB4080
- Width: 48"
- Length: 12" REG TE
- Start Date: 10/1/2002
- Submittal: 10:00:00
- Buttons: Stop, Board, View, Print
- Table Headers: Transverse Strength, Vertical, Edge Hardness, Edge Edge Hardness, Opposite Edge Hardness
- Table Columns: Test, Pass, Fail, Avg